

Mc
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Hill

Program Overview

Grades 6–8



Oklahoma Reveal
MATH[®]



At a Glance

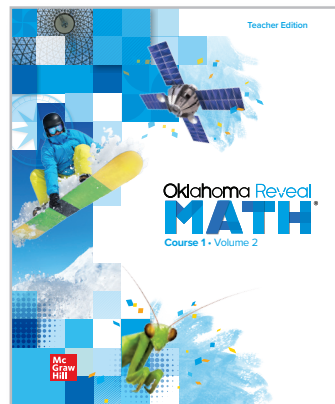
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Teacher Resources

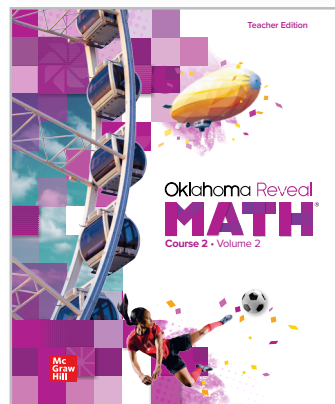
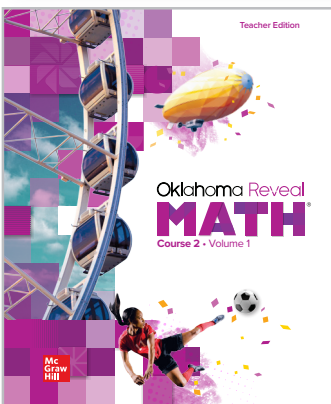
Print Resources

Teacher Edition, 2 Volumes

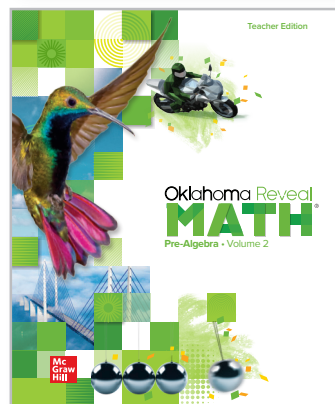
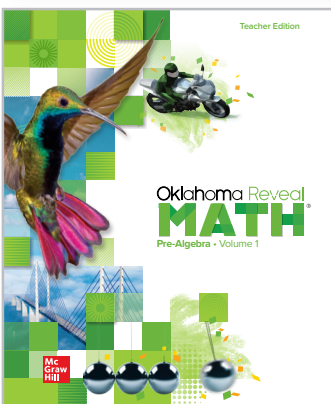
These spiral-bound Teacher Editions provide the essentials to plan and implement classroom instruction focused on the Oklahoma Mathematical Standards.



COURSE 1
Teacher Edition
Volumes 1 and 2



COURSE 2
Teacher Edition
Volumes 1 and 2

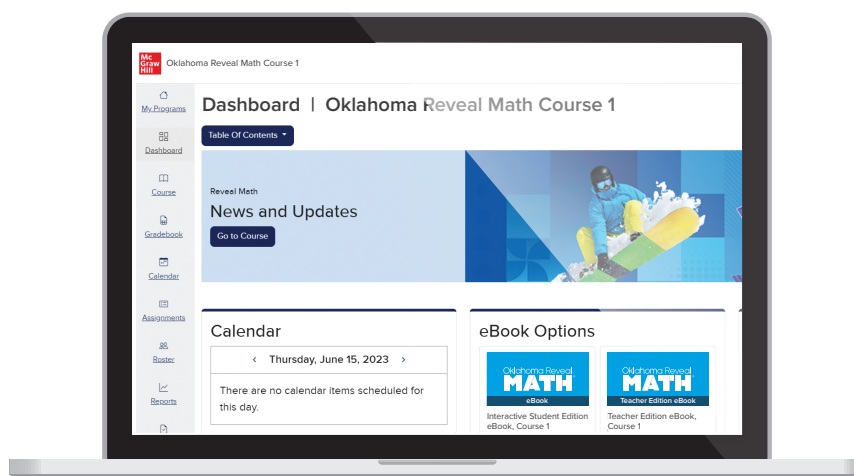


PRE-ALGEBRA
Teacher Edition
Volumes 1 and 2

Digital Resources

Teachers have access to an easy-to-use portal for planning, teaching, and validation of learning. The teacher experience includes:

- Teacher Edition eBook
- Language Development Handbook, Teacher Edition
- Interactive Lesson Presentations
- Program Quick Start Course
- Expert Insight Videos
- Auto-Scored, Customizable Online Assessment
- Differentiated Resources
- Dynamic Digital Practice
- Auto-scored, Customizable Interactive Practice
- Spiral Review
- Web Sketchpad®
- eToolkit (Virtual Manipulative Suite)
- Personal Tutor Lesson Support
- Practice and Assessment Word documents
- ALEKS® *
- Teacher and Administrator Reporting



Digital Integration

The McGraw Hill Open Learning Platform currently integrates with the following Federated Standards: SAML 2.0 IDP, LTI 1.0, and Clever. Integration is possible with most learning management systems that support these standards, including but not limited to:

- Canvas
- Schoology®
- Google Classroom
- Blackboard®

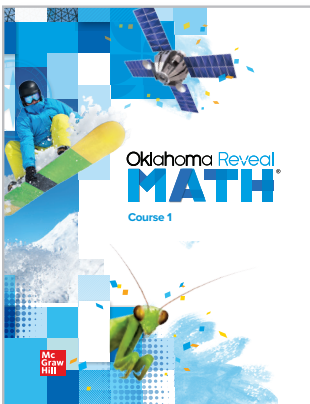
*with Oklahoma Reveal Math and ALEKS bundle

Student Resources

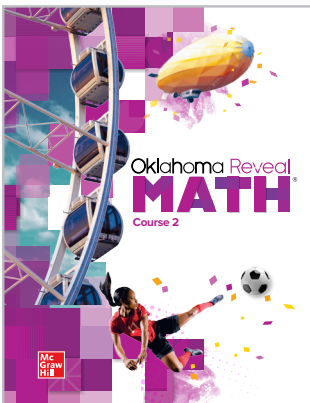
Print Resources

Student Edition, Hardcover

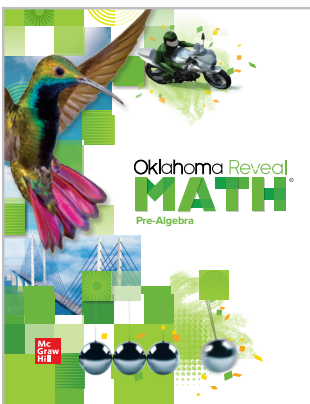
These hardcover Student Editions offer students the opportunity to engage in learning through the use of notetaking, problem-solving, discourse, and reflection.



COURSE 1
Student Edition



COURSE 2
Student Edition

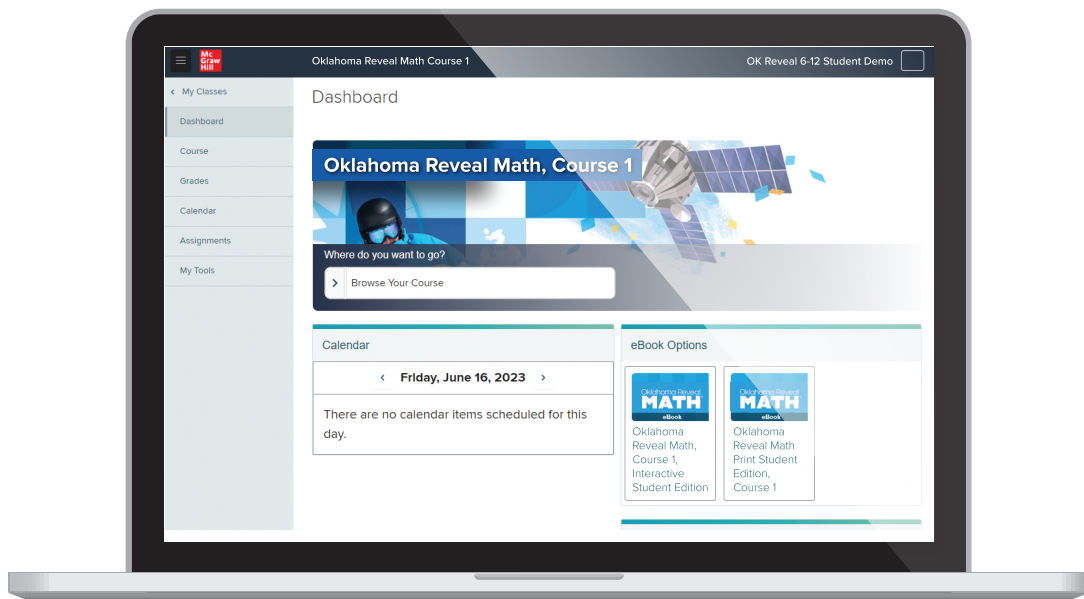


PRE-ALGEBRA
Student Edition

Digital Resources

Students have access to a robust set of engaging digital tools and interactive learning aids, including:

- Interactive Student Edition eBook
- Language Development Handbook
- Student Edition eBook
- Dynamic Digital Practice
- Interactive Digital Practice
- Web Sketchpad®
- eToolkit (Virtual Manipulative Suite)
- eGlossary
- Multilingual eGlossary
- Personal Tutor Video Lesson Support
- ALEKS® *



*with Oklahoma Reveal Math and ALEKS bundle

Designed to Meet Oklahoma Mathematics Standards

Oklahoma Reveal Math ensures teachers have the tools to deliver the high-quality instruction needed for student success in math class and beyond.

1. Lesson Goal and Contents

The focused goal of the lesson and the segments within is outlined. Note the icons recommending class, pair, and individual student activities.

2. Differentiated Resources

At-a-glance resources for lesson differentiation make planning easy.

3. Pacing

Lesson pacing for each activity is represented for 45- or 90-minute periods.

4. Oklahoma Academic Standards for Mathematics

Each Lesson Opener specifies the Domain, Major Cluster(s), Content, and Standards for Mathematical Practice.

5. Balanced Structure

The tasks, problems, and exercises reflect a balance of the three pillars of rigor: Conceptual Understanding, Procedural Skill & Fluency, and Application.

6. Vertical Alignment

Coherence shows what students have learned, what they are going to learn in the lesson, and what they will learn in the future.

7. Mathematical Background

Each lesson includes a point-of-use explanation of the mathematical context for teachers.

Lesson 1-1
Understand Ratios

1 LESSON GOAL

Students will understand the concept of a ratio.

1 LAUNCH

Launch the Lesson with a warm up and an introduction.

2 EXPLORE AND DEVELOP

Explore: Compare Two Quantities

Learn: Understand Ratios
Example 1: Understand Ratios
Learn: Part-to-Whole and Part-to-Part Ratios
Example 2: Part-to-Whole Ratios
Example 3: Part-to-Part Ratios
Apply: Fundraising

Have your students complete the Checks online.

3 REFLECT AND PRACTICE

Exit Ticket
Practice

DIFFERENTIATE

View reports of student progress of the Checks after each example to differentiate instruction.

Resources	AL	OL	EL
ArriveMATH Take Another Look	●	●	●
Extension: The Golden Ratio	●	●	●
Collaboration Strategies	●	●	●

Language Development Support
Assign page 1 of the *Language Development Handbook* to help your students build mathematical language related to understanding ratios and ratio language.
EL You can use the tips and suggestions on page T1 of the handbook to support students who are building English proficiency.

Suggested Pacing

90 min 1 day
45 min 2 days

Focus

Domain: Ratios and Proportional Relationships
Major Cluster(s): In this lesson, students address major cluster **6.N.3** by solving problems by understanding the concept of a ratio.
Oklahoma Academic Standards for Mathematics: 6.N.3.1

Coherence

Vertical Alignment

Previous
Students understood a fraction as part of a whole, and fraction equivalence. **5.N.3.3**

Now
Students understand the concept of a ratio. **6.N.3.1**

Next
Students will use ratio tables ratios. **6.N.3.2, 6.N.3.3, 6.N.3**

Rigor

The Three Pillars of Rigor

1 CONCEPTUAL UNDERSTANDING	2 FLUENCY	3 APPLICATION
Conceptual Bridge In this lesson, students develop <i>understanding</i> of ratios and ratio language to describe the relationship between two quantities. They come to understand that ratios can be part-to-whole and part-to-part and write ratios in different forms that express different ratio relationships. They <i>apply</i> their understanding of ratios to solve real-world problems.		

Mathematical Background

A ratio is a comparison between two quantities, in which for every a units of one quantity, there are b units of another quantity. The *for every* and *for each* are used to define and describe ratios. Ratios can be written in different ways and can be modeled using bar diagrams and other representations. A *part-to-whole ratio* compares one part of a group to the whole group. A *part-to-part ratio* compares one part of a group to another part of the same group.

4

Focus

Domain: Ratios and Proportional Relationships

Major Cluster(s): In this lesson, students address major cluster **6.N.3** by solving problems by understanding the concept of a ratio.

Oklahoma Academic Standards for Mathematics: 6.N.3.1

Learning Progression

Oklahoma Reveal Math ensures learning progression of mathematical content across all grades and within each grade from Kindergarten to Algebra 2. Module-level and lesson-level progressions help strengthen each student's learning journey.

Coherence

Vertical Alignment

Previous

Students understood a fraction as part of a whole, and fraction equivalence. **3.N.3.3, 4.N.3.1**

Now

Students use ratio and rate reasoning to solve real-world and mathematical problems. **6.N.3.1, 6.N.3.3, 6.N.3.2**

Next

Students will use ratio reasoning to find the percent of a number. **6.N.3.2, 6.N.3.3**

Module-Level Learning Progression helps teachers understand previously learned concepts and skills, the focus of the upcoming module, and follow-up concepts and skills.

Module 1
Ratios and Rates

Module Goal
Use ratio and rate reasoning to solve real-world and mathematical problems.

Focus
Domain: Ratios and Proportional Relationships
Major Cluster(s): **6.N.3** Understand ratio concepts and use ratio reasoning to solve problems.
Oklahoma Academic Standards for Mathematics: **6.N.3.1** Identify and use ratios to compare and relate quantities in multiple ways. Recognize that multiplicative comparison and additive comparison are different.
6.N.3.2 Understand the unit rate for ratios.
6.N.3.3 Apply the relationship between ratios, equivalent fractions, unit rates, and percents to solve problems in various contexts.
6.NM.2 Solve problems that require the conversion of lengths within the same measurement system using appropriate units.
Oklahoma Academic Standards for Mathematical Practices and Processes: Throughout module.

Be Sure to Cover
Students need to understand how a fraction can be used to express part of a whole, and need to be able to multiply and divide with whole numbers.
Use the Module Pretest to diagnose readiness. You may wish to spend more time on the Warm Up for each lesson to fully review these concepts.

Suggested Pacing

Lesson	Oklahoma Standard(s)	45-min classes	90-min classes
Module Pretest and Launch the Module Video		1	0.5
11 Understand Ratios	6.N.3.1	2	1
12 Tables of Equivalent Ratios	6.N.3.1, 6.N.3.3	3	1.5
13 Graphs of Equivalent Ratios	6.N.3.1, 6.N.3.3	2	1
14 Compare Ratio Relationships	6.N.3.1, 6.N.3.3	1	0.5
15 Solve Rate Problems	6.N.3.1, 6.N.3.3	2	1
Put It All Together 1: Lessons 11 through 15		0.5	0.25
16 Convert Customary Measurement Units	6.N.3.1, 6.N.3.3, 6.GM.4.2	2	1
17 Understand Rates and Unit Rates	6.N.3.2, 6.N.3.3	2	1
18 Solve Rate Problems	6.N.3.2, 6.N.3.3	2	1
Put It All Together 2: Lessons 16 through 18		0.5	0.25
Module Review		1	0.5
Module Assessment		1	0.5
Total Days		20	10

Module 1 - Ratios and Rates 14

Coherence

Vertical Alignment

Previous

Students understood a fraction as part of a whole, and fraction equivalence. **5.N.3.3**

Now

Students understand the concept of a ratio. **6.N.3.1**

Next

Students will use ratio tables and double number lines to find equivalent ratios. **6.N.3.2, 6.N.3.3, 6.N.3**

Lesson-Level Learning Progression provides a more granular analysis of the learning progression from lesson to lesson within the module.

Lesson 1-1
Understand Ratios

LESSON GOAL
Students will understand the concept of a ratio.

1 LAUNCH
Launch the Lesson with a warm-up and an introduction.

2 EXPLORE AND DEVELOP
Explore: Compare Two Quantities
Learn: Understand Ratios
Example 1: Understand Ratios
Learn: Part-to-Whole and Part-to-Part Ratios
Example 2: Part-to-Whole Ratios
Example 3: Part-to-Part Ratios
Apply: Forwarding
Have your students complete the Checks online.

3 REFLECT AND PRACTICE
Exit Ticket
Practice

DIFFERENTIATE
View reports of student progress of the Checks after each example to differentiate instruction.
Resources: **Anchor Papers** Take Another Look, **Extension: The Golden Ratio**, **Collaboration Strategies**

Language Development Support
Assign page 1 of the Language Development Handbook to help your students build mathematical language related to understanding ratios and rate language.
You can use the tips and suggestions on page 11 of the handbook to support students who are building English proficiency.

Suggested Pacing
90 min: 1 day
45 min: 2 days

Focus
Domain: Ratios and Proportional Relationships
Major Cluster(s): In this lesson, students address major cluster **6.N.3** by solving problems by understanding the concept of a ratio.
Oklahoma Academic Standards for Mathematics: **6.N.3.1**

Coherence
Vertical Alignment
Previous
Students understood a fraction as part of a whole, and fraction equivalence. **5.N.3.3**
Now
Students understand the concept of a ratio. **6.N.3.1**
Next
Students will use ratio tables and double number lines to find equivalent ratios. **6.N.3.2, 6.N.3.3, 6.N.3**

Rigor
The Three Pillars of Rigor
1 CONCEPTUAL UNDERSTANDING 2 FLUENCY 3 APPLICATION
Conceptual Bridge In this lesson, students develop understanding of ratios and ratio language to describe the relationship between two quantities. They come to understand that ratios can be part-to-whole and part-to-part and write ratios in different forms that express different ratio relationships. They apply their understanding of ratios to solve real-world problems.

Mathematical Background
A ratio is a comparison between two quantities, in which for every unit of one quantity, there are a units of another quantity. The phrases for every and for each are used to define and describe ratios. Ratios can be written in different ways and can be modeled using bar diagrams and other representations. A part-to-whole ratio compares one part of a group to the whole group. A part-to-part ratio compares one part of a group to another part of the same group.

Lesson 1-1 - Understand Ratios 34

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Module 1 Ratios and Rates

- Lesson 1: Understand Ratios
- Lesson 2: Tables of Equivalent Ratios
- Lesson 3: Graphs of Equivalent Ratios
- Lesson 4: Compare Ratio Relationships
- Lesson 5: Solve Ratio Problems
- Lesson 6: Convert Customary Measurement Units
- Lesson 7: Understand Rates and Unit Rates
- Lesson 8: Solve Rate Problems

Module 2 Fractions, Decimals, and Percents

- Lesson 1: Understand Percents
- Lesson 2: Percents Greater Than 100% and Less Than 1%
- Lesson 3: Relate Fractions, Decimals, and Percents
- Lesson 4: Find the Percent of a Number
- Lesson 5: Estimate the Percent of a Number
- Lesson 6: Find the Whole

Module 3 Compute with Multi-Digit Numbers and Fractions

- Lesson 1: Divide Multi-Digit Whole Numbers
- Lesson 2: Compute With Multi-Digit Decimals
- Lesson 3: Divide Whole Numbers by Fractions
- Lesson 4: Divide Fractions by Fractions
- Lesson 5: Divide with Whole and Mixed Numbers

Module 4 Integers, Rational Numbers, and the Coordinate Plane

- Lesson 1: Represent Integers
- Lesson 2: Opposites and Absolute Value
- Lesson 3: Compare and Order Integers
- Lesson 4: Rational Numbers
- Lesson 5: The Coordinate Plane
- Lesson 6: Graph Reflections of Points
- Lesson 7: Absolute Value and Distance

Module 5 Numerical and Algebraic Expressions

- Lesson 1: Powers and Exponents
- Lesson 2: Numerical Expressions
- Lesson 3: Write Algebraic Expressions
- Lesson 4: Evaluate Algebraic Expressions
- Lesson 5: Factors and Multiples
- Lesson 6: Use the Distributive Property
- Lesson 7: Equivalent Algebraic Expressions

Module 6 Equations and Inequalities

- Lesson 1: Use Substitution to Solve One-Step Equations
- Lesson 2: One-Step Addition Equations
- Lesson 3: One-Step Subtraction Equations
- Lesson 4: One-Step Multiplication Equations
- Lesson 5: One-Step Division Equations
- Lesson 6: Inequalities

Module 7 Relationships Between Two Variables

- Lesson 1: Relationships Between Two Variables
- Lesson 2: Write Equations to Represent Relationships Represented in Tables
- Lesson 3: Graphs of Relationships
- Lesson 4: Multiple Representations

Module 8 Area

- Lesson 1: Area of Parallelograms
- Lesson 2: Area of Triangles
- Lesson 3: Area of Trapezoids
- Lesson 4: Area of Regular Polygons
- Lesson 5: Polygons on the Coordinate Plane

Module 9 Volume and Surface Area

- Lesson 1: Volume of Rectangular Prisms
- Lesson 2: Surface Area of Rectangular Prisms
- Lesson 3: Surface Area of Triangular Prisms
- Lesson 4: Surface Area of Pyramids

Module 10 Statistical Measures and Displays

- Lesson 1: Statistical Questions
- Lesson 2: Dot Plots and Histograms
- Lesson 3: Measures of Center
- Lesson 4: Mean Absolute Deviation
- Lesson 5: Outliers
- Lesson 6: Interpret Graphical Displays

Module 11 Transformations

- Lesson 1: Translations
- Lesson 2: Reflections
- Lesson 3: Rotations
- Lesson 4: Dilations

Module 12 Congruence and Similarity

- Lesson 1: Congruence and Transformations
- Lesson 2: Congruence and Corresponding Parts
- Lesson 3: Similarity and Transformations
- Lesson 4: Similarity and Corresponding Parts
- Lesson 5: Indirect Measurement

Oklahoma Lessons

- Lesson 1: Multiplicative and Additive Comparisons
- Lesson 2: Convert within the Metric System
- Lesson 3: Use Models to Multiply Decimals
- Lesson 4: Add Integers
- Lesson 5: Subtract Integers
- Lesson 6: Prime and Composite Numbers
- Lesson 7: Area of Squares
- Lesson 8: Weights and Capacities
- Lesson 9: Mode
- Lesson 10: Probability
- Lesson 11: Probability of Compound Events
- Lesson 12: Experiments
- Lesson 13: Symmetry

COURSE 2

Module 1 Proportional Relationships

- Lesson 1: Unit Rates Involving Ratios of Fractions
- Lesson 2: Understand Proportional Relationships
- Lesson 3: Tables of Proportional Relationships
- Lesson 4: Graphs of Proportional Relationships
- Lesson 5: Equations of Proportional Relationships
- Lesson 6: Solve Problems Involving Proportional Relationships

Module 2 Solve Percent Problems

- Lesson 1: Percent of Change
- Lesson 2: Tax
- Lesson 3: Tips and Markups
- Lesson 4: Discounts
- Lesson 5: Interest
- Lesson 6: Commission and Fees
- Lesson 7: Percent Error

Module 3 Operations with Integers

- Lesson 1: Multiply Integers
- Lesson 2: Divide Integers
- Lesson 3: Apply Integer Operations

Module 4 Operations with Rational Numbers

- Lesson 1: Rational Numbers
- Lesson 2: Add Rational Numbers
- Lesson 3: Subtract Rational Numbers
- Lesson 4: Multiply Rational Numbers
- Lesson 5: Apply Rational Number Operations

Module 5 Simplify Algebraic Expressions

- Lesson 1: Simplify Algebraic Expressions
- Lesson 2: Add Linear Expressions
- Lesson 3: Subtract Linear Expressions
- Lesson 4: Factor Linear Expressions
- Lesson 5: Combine Operations with Linear Expressions

COURSE 2 (continued)

Module 6 Write and Solve Equations

Lesson 1: Write and Solve One-Step Equations

Lesson 2: Solve Two-Step Equations: $px + q = r$

Lesson 3: Write and Solve Two-Step Equations:
 $px + q = r$

Lesson 4: Solve Two-Step Equations: $p(x + q) = r$

Lesson 5: Write and Solve Two-Step Equations:
 $p(x + q) = r$

Module 7 Write and Solve Inequalities

Lesson 1: Solve One-Step Addition and Subtraction Inequalities

Lesson 2: Write and Solve One-Step Addition and Subtraction Inequalities

Lesson 3: Solve One-Step Multiplication and Division Inequalities with Positive Coefficients

Lesson 4: Solve One-Step Multiplication and Division Inequalities with Negative Coefficients

Lesson 5: Write and Solve One-Step Multiplication and Division Inequalities

Lesson 6: Write and Solve Two-Step Inequalities

Module 8 Geometric Figures

Lesson 1: Vertical and Adjacent Angles

Lesson 2: Complementary and Supplementary Angles

Lesson 3: Triangles

Lesson 4: Scale Drawings

Lesson 5: Three-Dimensional Figures

Module 9 Measure Figures

Lesson 1: Circumference of Circles

Lesson 2: Area of Circles

Lesson 3: Area of Composite Figures

Lesson 4: Volume

Lesson 5: Surface Area

Lesson 6: Volume and Surface Area of Composite Figures

Module 10 Probability

Lesson 1: Find Likelihoods

Lesson 2: Relative Frequency of Simple Events

Lesson 3: Theoretical Probability of Simple Events

Lesson 4: Compare Probabilities of Simple Events

Lesson 5: Simulate Chance Events

Module 11 Sampling and Statistics

Lesson 1: Biased and Unbiased Samples

Lesson 2: Make Predictions

Lesson 3: Generate Multiple Samples

Lesson 4: Compare Two Populations

Lesson 5: Assess Visual Overlap

Oklahoma Lessons

Lesson 1: Graphs of Proportional Relationships

Lesson 2: Proportional Reasoning

Lesson 3: Compare and Order Rational Numbers

Lesson 4: Absolute Value

Lesson 5: Rational Numbers

Lesson 6: Similarity

Lesson 7: Use Scale Drawings to Find Unknown Lengths and Areas

Lesson 8: Graph Translations

Lesson 9: Area of a Trapezoid

Lesson 10: Nets

Lesson 11: Volume of Rectangular Prisms

Lesson 12: Perimeter of Composite Figures

Lesson 13: Measures of Center and Spread

Lesson 14: Interquartile Range and Box Plots

Lesson 15: Circle Graphs and Histograms

Lesson 16: Convert Within the Metric System

PRE-ALGEBRA

Module 1 Exponents and Scientific Notation

- Lesson 1: Powers and Exponents
- Lesson 2: Multiply and Divide Monomials
- Lesson 3: Powers of Monomials
- Lesson 4: Zero and Negative Exponents
- Lesson 5: Scientific Notation
- Lesson 6: Compute with Scientific Notation

Module 2 Real Numbers

- Lesson 1: Terminating and Repeating Decimals
- Lesson 2: Roots
- Lesson 3: Real Numbers
- Lesson 4: Estimate Irrational Numbers
- Lesson 5: Compare and Order Real Numbers

Module 3 Solve Equations with Variables on Each Side

- Lesson 1: Solve Equations with Variables on Each Side
- Lesson 2: Write and Solve Equations with Variables on Each Side
- Lesson 3: Solve Multi-Step Equations
- Lesson 4: Write and Solve Multi-Step Equations
- Lesson 5: Determine the Number of Solutions

Module 4 Linear Relationship and Slope

- Lesson 1: Proportional Relationships and Slope
- Lesson 2: Slope of a Line
- Lesson 3: Similar Triangles and Slope
- Lesson 4: Direct Variation
- Lesson 5: Slope-Intercept Form
- Lesson 6: Graph Linear Equations

Module 5 Functions

- Lesson 1: Identify Functions
- Lesson 2: Function Tables
- Lesson 3: Construct Linear Functions
- Lesson 4: Compare Functions
- Lesson 5: Nonlinear Functions
- Lesson 6: Qualitative Graphs

Module 6 Triangles and the Pythagorean Theorem

- Lesson 1: Angle Relationships and Parallel Lines
- Lesson 2: Angle Relationships and Triangles
- Lesson 3: The Pythagorean Theorem
- Lesson 4: Converse of the Pythagorean Theorem
- Lesson 5: Distance on the Coordinate Plane

Module 7 Volume

- Lesson 1: Volume of Cylinders
- Lesson 2: Volume of Cones
- Lesson 3: Volume of Spheres
- Lesson 4: Find Missing Dimensions
- Lesson 5: Volume of Composite Solids

Module 8 Scatter Plots and Two-Way Tables

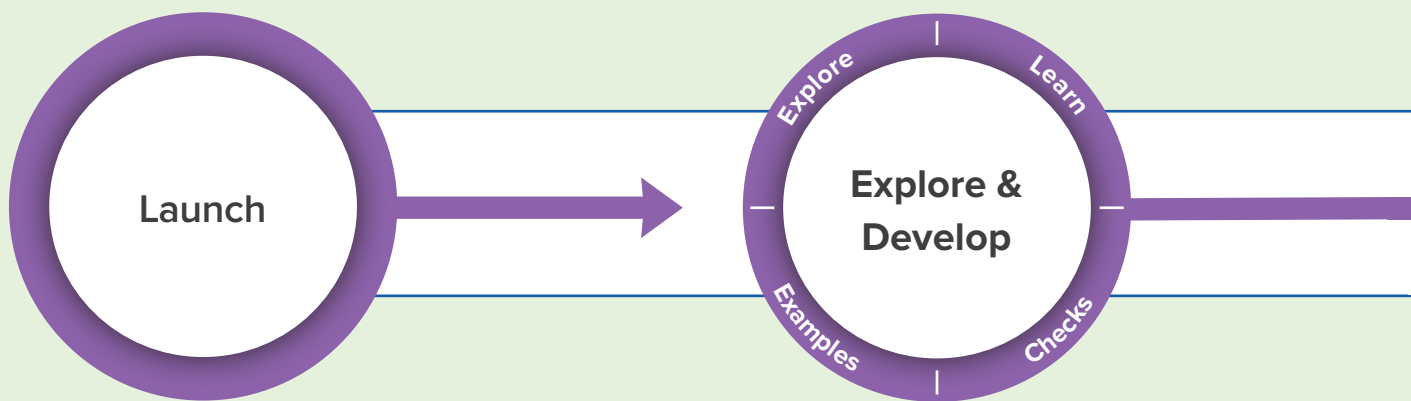
- Lesson 1: Scatter Plots
- Lesson 2: Draw Lines of Fit
- Lesson 3: Equations for Lines of Fit
- Lesson 4: Two-Way Tables
- Lesson 5: Associations in Two-Way Tables

Oklahoma Lessons

- Lesson 1: Properties
- Lesson 2: Substitution
- Lesson 3: Predictions on a Graph
- Lesson 4: Linear Inequalities
- Lesson 5: Real-World Linear Inequalities
- Lesson 6: Justify Volume Formula
- Lesson 7: Surface Area of Cylinders
- Lesson 8: Surface Area of Rectangular Prisms
- Lesson 9: Impact of Data on Mean and Median
- Lesson 10: Dependent and Independent Events
- Lesson 11: Experimental Probability of Repeated Experiments
- Lesson 12: Using a Sample to Draw Inferences

Lesson Model Overview

The *Oklahoma Reveal Math* lesson is organized into a three-part instructional model supported by differentiation throughout. Each lesson includes opportunities for flexibility using both print and digital resources.



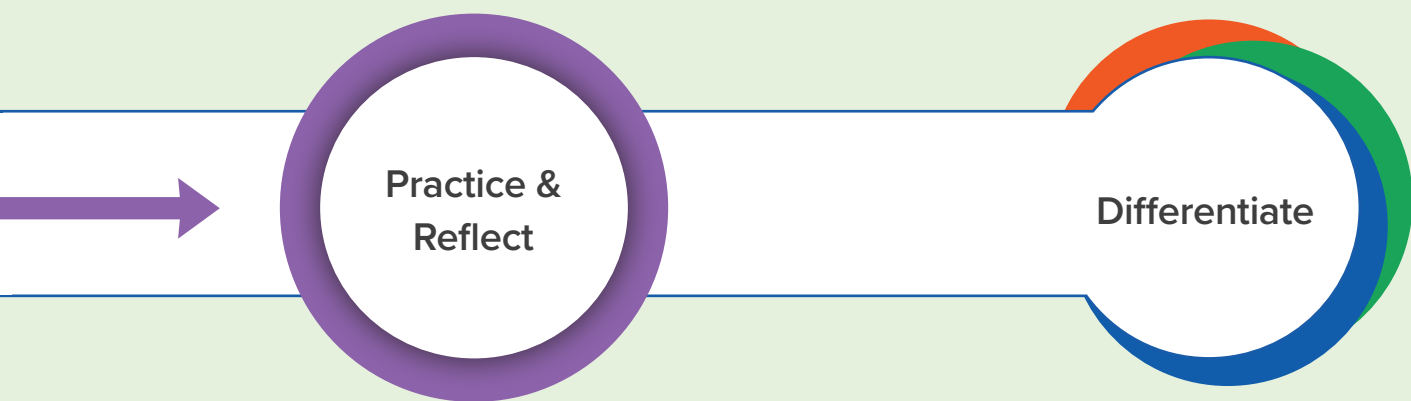
Launch

Teachers use the **Warm Up** at the start of the lesson for a brief review of prerequisite skills before leading into **Launch the Lesson**, designed as a real-world problem to interest students and introduce them to questions they can answer by the end of the lesson.

Explore & Develop

Teachers introduce the **Explore** activity and have the option to break students into pairs or small groups to work together on this exploratory mathematical task to build a shared understanding. This activity is followed by a whole group share-out and **Learn** activity to formalize student understanding.

Students continue to take ownership of learning by working through **Examples** and **Talk About It!** prompts to encourage math discourse. A **Check** after every **Example** provides a quick formative assessment moment.



Practice & Reflect

At the conclusion of the lesson, the teacher displays the **Exit Ticket** to evaluate student understanding.

The assignment of **Practice**, **Extra Practice**, or **Spiral Review** follows the Differentiate phase and concludes the lesson.

Differentiate

Teachers can use the **Exit Ticket** or data from **Checks** to choose from various Differentiated Resources to support student learning needs.

AL Approaching Level

Resources designed to provide prerequisite skill support.

OL On Level

Resources for on-level instructional needs.

BL Beyond Level

Resources to enrich lesson concepts.

Spark Curiosity



Each module includes an **ignite!** activity designed to:

- Spark students' interest and curiosity
- Provide multiple entry points
- Motivate students to persevere through problem-solving challenges.



“Let’s bring curiosity, wonder, and joy back into the classroom and make math irresistible for kids.”

–Raj Shah, Ph.D.,
Contributing Author

NAME _____ DATE _____ PERIOD _____

IGNITE!
School Breakfast

Nine students each bring in either banana nut or blueberry muffins for a breakfast. Each student places his or her muffins on 9 separate tables.

Student 1: Let's reorganize the muffins so that each table has the same number of muffins.

Student 2: We should keep the banana nut muffins on separate tables from the other muffins in case someone has a nut allergy.

Student 3: I also brought 10 chocolate chip muffins. I want to place those on the tables too.

Student 1: Let's make sure each of the 9 tables has the same number of muffins.

Tables of Blueberry Muffins

Tables of Banana Nut Muffins

What do you notice?	What questions can you ask?

Talk About It! Share your observations and questions with a partner. What do you notice about the observations you each made and the questions you each asked?

With your class, choose one of your questions and record it below. This should be a question that you can answer by generating your own strategies.

How can you answer your question? What strategies can you use?	What assumptions, if any, will you make? Why are you making these assumptions?

Ignite • School Breakfast ©McGraw-Hill Education

Sense-Making and Reasoning

Online **Explore** activities focus on an **Inquiry Question** and place a unique emphasis on student discovery, exploration, sense-making, and reasoning, rather than focusing solely on the correct answer.

Ms. Spencer orders pizza for her students at the end of the year to celebrate reaching certain milestones. Each pizza costs \$7.

Drag the pieces of pepperoni to complete the table for the costs of 1, 2, 3, and 4 pizzas.

Number of Pizzas	1		3	
Cost (\$)		14		

Reset Check Answer

Credit Show Inquiry Question



“We have a huge opportunity today in helping students become such strong, fluid, and flexible thinkers that they are able to use mathematics and see opportunities to use it in places we may not even imagine.”

–Cathy Seeley,
Expert Advisor

Problem Solving and Application

Oklahoma Reveal Math provides a foundation for students to take increased ownership of learning to become effective problem solvers and critical thinkers.

Demonstrating Perseverance

Rich contextual problem-solving tasks with multiple solution paths encourage productive struggle.

Apply Bake Sale

The Spanish Club is having a bake sale. You can buy a bag of trail mix and a loaf of pumpkin bread for \$11 or three bags of trail mix and two loaves of pumpkin bread for \$24. This situation can be represented with the system $x + y = 11$ and $3x + 2y = 24$, where x represents the cost of a bag of trail mix and y represents the cost of a loaf of pumpkin bread. How much does each bag of trail mix and each loaf of pumpkin bread cost?

1 What is the task?
Make sure you understand exactly what question to answer or problem to solve. You may want to read the problem three times. Discuss these questions with a partner.

First Time Describe the context of the problem, in your own words.
Second Time What mathematics do you see in the problem?
Third Time What are you wondering about?

2 How can you approach the task? What strategies can you use?

Record your observations here

3 What is your solution?
Use your strategy to solve the problem.

Show your work here

4 How can you show your solution is reasonable?
Write About It! Write an argument that can be used to defend your solution.



2 How can you approach the task? What strategies can you use?

Record your observations here

Talk About It!
How do you know the solution cannot be \$9 for each bag of trail mix and \$2 for each loaf of pumpkin bread?

Encourage Productive Struggle
As students work, monitor their progress. Instead of instructing them on a particular strategy, encourage them to use their own strategies to solve the problem and to evaluate their progress along the way. They may or may not find that they need to change direction or try out several strategies.

Signs of Non-Productive Struggle
If students show signs of non-productive struggle, such as feeling overwhelmed, frustration, or disengagement, intervene to encourage them to think of alternate approaches to the problem. Some sample questions are shown.

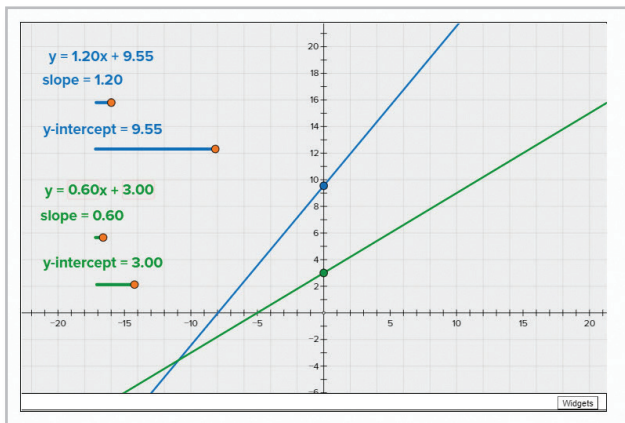
- How might it help if the equations were rewritten in a different form?
- What could the graphs of the equations tell you about the price of each item?
- What does the value of x represent? the value of y ?

Lesson 6-1 • Solve Systems of Equations

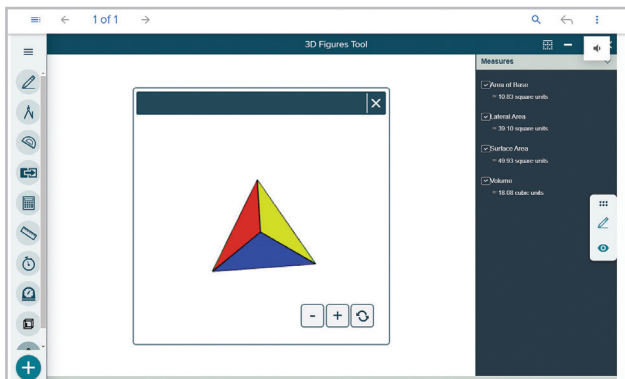
Copyright © McGraw-Hill Education

Tools to Support Visualization and Modeling

As math increases in complexity, students will benefit from tools that allow them to represent mathematics in different ways. *Oklahoma Reveal Math* includes **Web Sketchpad**® and virtual manipulatives at point of use within the lessons.



An **eToolkit** accessible from inside the Digital Student Center enables students to learn through dynamic mathematical models.



Pause and Reflect

Reflection helps drive accountability and gives students the opportunity to think and write about their learning. Students are regularly asked during **Pause and Reflect** to explain what they have learned.

Pause and Reflect

How do you determine if your estimates are reasonable?

Record your observations here.

Notetaking for Understanding

The **Student Edition** is organized with Cornell-inspired margins for students to draw figures or document notes, key takeaways, or strategies.

Lesson 6-3

Determine Number of Solutions

I Can... use the slope-intercept form of lines in order to determine whether a system of equations has zero, one, or infinitely many solutions.

Explore Systems of Equations: Slopes and y-intercepts

Online Activity You will use Web Sketchpad to explore the relationship between the slopes and y-intercepts of systems of equations and the number of solutions to the system.

Pause and Reflect

Compare and contrast the graph of a system of equations with one solution to the graph of a system of equations with no solution. Include discussion about slopes and y-intercepts in your answer.

Record your observations here.

Lesson 6-3 • Determine Number of Solutions 337

Purposeful Practice

Practice in *Oklahoma Reveal Math* provides students with ample opportunity to demonstrate conceptual understanding and procedural fluency. Teachers may choose to fully customize pre-built practice sets and questions.

Practice assignments can be completed in the print Student Edition, using a printable worksheet, or within the Digital Student Center.

Extra Practice assignments contain additional questions for each lesson on a printable worksheet or within the Digital Student Center.

Practice
Solve each system of equations by graphing. Check the solution. (Examples 1-4)

- $y = x + 4$
 $y = -2x - 2$
- $y = \frac{1}{2}x - 1$
 $y = \frac{3}{2}x + 4$
- $y + \frac{1}{4}x = 1$
 $y = -\frac{1}{4}x + 1$
- $x = -3$
 $y = 5$

Test Practice
5. **Grid** The graph of a system of equations is shown. Plot and label the solution of the system on the graph.

Lesson 6-1 • Solve Systems of Equations by Graphing 329

Extra Practice
Solve Systems of Equations by Graphing
Solve each system of equations by graphing. Check the solution. (Examples 1-4)

- $y = -8$
 $x = -4$
- $y = -x - 3$
 $y = -2x - 7$
- $y = 3x + 1$
 $y = 3x - 5$
- $y = \frac{2}{3}x + 4$
 $y - 3 = \frac{2}{3}x + 1$
- $y = 4x - 1$
 $y = -2x + 11$
- $y = -7x - 2$
 $y + 3 = -7x + 1$

Benefits of Digital Practice

- Multiple Attempts
- Embedded Student Learning Aids
- Tech-Enhanced Question Types
- Dynamic Question Functionality
- Auto-Scoring
- Thousands of Practice Bank Questions

Question 1
This question has two parts. First, answer Part A. Then, answer Part B.

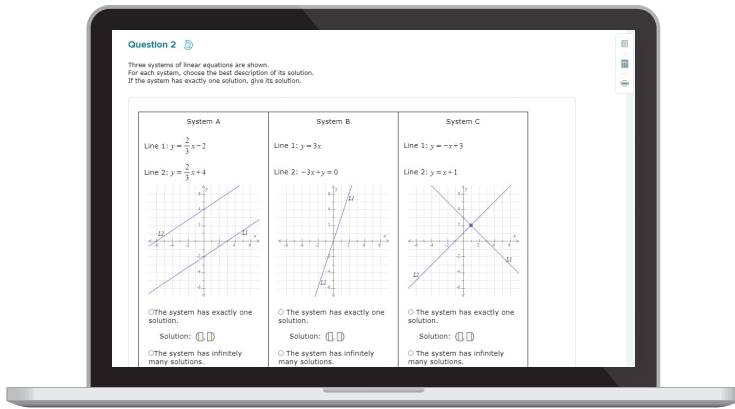
Part A
Solve the system of equations by graphing. Graph both equations on the coordinate plane even if they represent the same line.

$y = x + 4$
 $y = -2x - 2$

Line [Clear] [Undo]

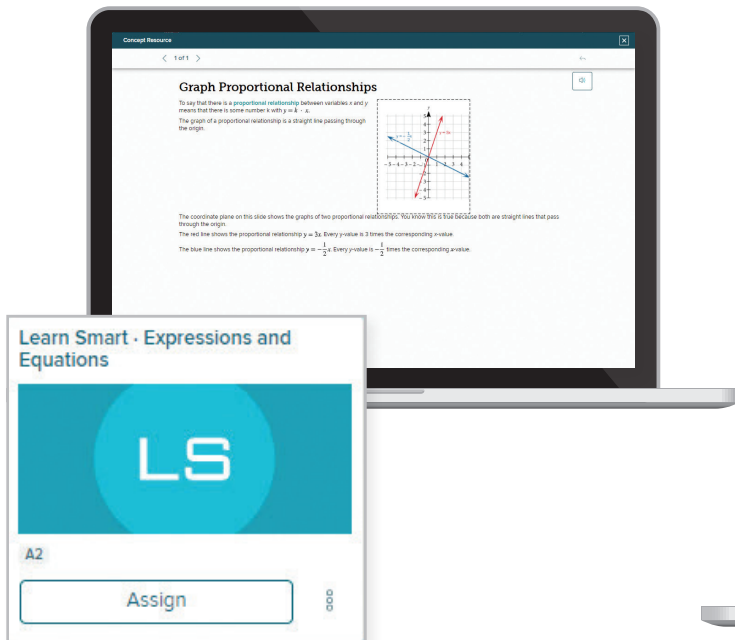
Dynamic Practice

Questions that change value for each student and each attempt are found in Extra Practice, Spiral Review, and Dynamic Module Practice sets.



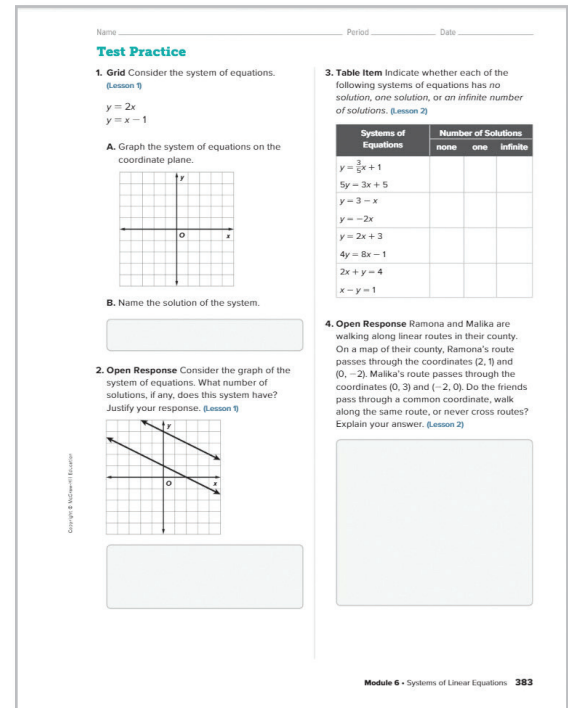
LearnSmart®

After several modules, assign students personalized, adaptive practice focused on learning objectives.



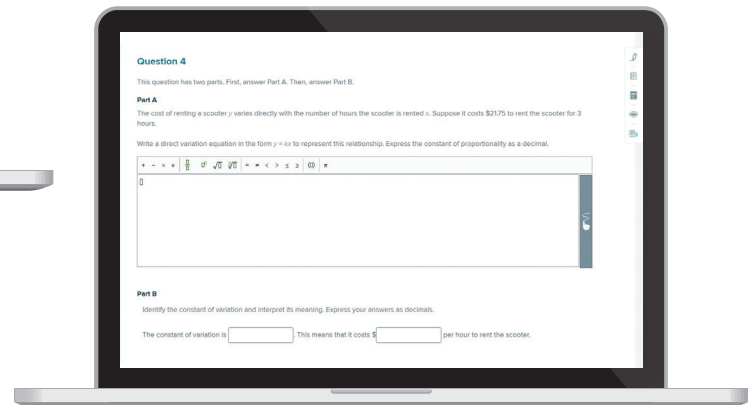
Module Test Practice

Assessment practice concludes the module in the Student Edition.



Spiral Review

End-of-lesson practice is available on concepts presented in prior lessons.



Positive Math Habits

Oklahoma Reveal Math is infused with research-based best practices designed for teachers to establish a culture of positivity and success where students find purpose in effort and learning opportunities through questions, errors, and discourse.

Mindset Matters

Teachers are prompted at the beginning of every module with **Mindset Matters** to implement strategies for encouraging a growth mindset, including suggestions on how to implement them during upcoming lessons.

Mindset Matters

“Not Yet” Doesn’t Mean “Never”

Students with a growth mindset understand that just because they haven’t yet found a solution, that does not mean they won’t find one with additional effort and reasoning. It can take time and continued effort to reason through different strategies that can be used to solve a problem.

How Can I Apply It?

Assign students the **Formative Assessment Math Probes** that are available for each module. Have them complete the probe before starting the module, and then again at the specified lesson within the module, or at the end of the module so that they can see their progress.

The screenshot shows a digital lesson slide with the following content:

- 2 EXPLORE AND DEVELOP**
- 1 CONCEPTUAL UNDERSTANDING 2 FLUENCY 3 APPLICATION**
- Explore Use Algebra Tiles to Add Integers**
- Objective:** Students will use algebra tiles to explore how to add integers.
- Ideas for Use:**
 - Recommended Use:** Present the Inquiry Question, or have a student volunteer read it aloud. Have students work in pairs to complete the Explore activity on their devices. Pairs should discuss each of the *Talk About It!* questions. Monitor student progress during the activity. Upon completion of the Explore activity, have student volunteers share their responses to the Inquiry Question.
 - What if my students don't have devices?** You may choose to project the activity on a whiteboard. A printable worksheet for each Explore is available online. You may choose to print the worksheet so that individuals or pairs of students can use it to record their observations.
- Summary of Activity:** Students will be presented with algebra tiles representing 1 and -1 . Throughout this activity, students will use the algebra tiles to add integers.
- Inquiry Question:** How can algebra tiles be used to model integer addition? **Sample answer:** Use algebra tiles to represent each integer. Remove any zero pairs. The value that remains represents the sum of the integers.
- Talk About It!** (with a list of icons)
 - Mathematical Discourse:** What steps did you take to model the expression? **Sample answer:** Begin by placing two -1 tiles on the workspace. Then add three -1 tiles. The sum of the tiles on the workspace is five -1 tiles.

The right side of the slide shows an 'Interactive Presentation' window with three slides:

- Slide 1 of 7:** 'Use Algebra Tiles to Add Integers' with a visual of red and blue tiles.
- Slide 2 of 7:** 'Explore' with a workspace for algebra tiles and instructions: 'Use algebra tiles to model $2 + 3$ on the workspace. Record the problem and your solution.' It includes 'DRAG & DROP' and 'WATCH' buttons.
- Slide 3:** 'TYPE' with instructions: 'On Slide 3, students type to make a conjecture about the sum of two negative addends.'

Mathematical Discourse

As a discourse-driven program, *Oklahoma Reveal Math* makes class discussion part of the norm through Student Edition **Talk About It!** prompts and corresponding Teacher Edition **Mathematical Discourse** prompts.

Talk About It!

SLIDE 2

Mathematical Discourse

What steps did you take to model the expression? **Sample answer:** Begin by placing two -1 tiles on the workspace. Then add three -1 tiles. The sum of the tiles on the workspace is five -1 tiles.

Purposeful Tasks to Deepen Understanding

Oklahoma Reveal Math tasks are designed to provide students structure to explore, uncover ideas, justify thinking, and ask each other questions to deepen understanding.



Focus on Inquiry:

Online **Explore** activities begin with an open-ended **Inquiry Question** to encourage deep thinking and reasoning. Students document their findings either online or on an **Explore Recording Sheet**.

NAME _____ DATE _____ PERIOD _____

Explore Systems of Equations

Online Activity In this Explore, you will use Web Sketchpad to explore what it means when two linear equations intersect and make a conjecture about the point of intersection.

Introducing the INQUIRY Question What does it mean when the graphs of two linear equations intersect?

Complete the activities on Slides 2-5. Then respond to these questions.

- Talk About It!** Approximately when do the hikers meet? You can run the simulation again, or select *Show One Hour Buttons* to see their progress hour by hour. You can also select *Show Time Slider* to move the hikers along the trail.
- Talk About It!** From the table, what can you predict about when the hikers will meet? Explain your reasoning.

Explore • Systems of Equations © McGraw-Hill Education

Encourage Collaboration:

Collaborative Practice prompts in the Teacher Edition encourage students to work together to solve, discuss, and evaluate problems.

Collaborative Practice

Have students work in pairs or small groups to complete the following exercise.

Solve the problem another way.

Use with Exercise 16 Have students work in groups of 3–4. After completing Exercise 16, have one student from each group rotate to form a different group of students. Each student should share the solution method they previously used to solve the problem. Have students compare and contrast the different methods for solving the problem, and determine if each method is a viable solution. If the solutions were the same, have them brainstorm another way to solve the problem. Have one group present two viable solution methods to the class, and explain why each method is a correct method.

Talk About It! prompts ask students to explain their reasoning and discuss their thinking.

Talk About It!

Give an example of adding integers with different signs. Does your example reinforce the statements about the sign of a sum?

Building Mathematical Language

Oklahoma Reveal Math was developed around the belief that mathematics is about communication: listening, speaking, reading, and writing. All students will benefit from support designed to develop and promote the use of mathematical language.

MLR

Math Language Routines

Found in the Language Development Handbook, Teacher Edition, each lesson includes routines to promote the use of mathematical language.

Language Development Handbook

Graphic organizers, tools, and tips help to build students' academic and math vocabulary within each lesson.

ONLINE

ELL

English Language Learner Scaffolds

Embedded in each lesson and based on combined WIDA proficiency levels to help students understand math vocabulary, ideas, and concepts in context.

LOM

Language of Math

Promotes the development of key vocabulary terms that support how students talk about and think about math in the context of the lesson content.



Walter Secada, Ph.D.
—Expert Advisor, ELL

Support for English Language Learners (ELLs)

In addition to embedded Teacher Edition language support strategies, *Oklahoma Reveal Math* includes resources to assist ELLs with context and language proficiency.

- Spanish Videos
- Audio to Improve Listening Comprehension Skills
- English/Spanish Glossary
- Multilingual eGlossary
- **ALEKS*** Bilingual Courses in Spanish

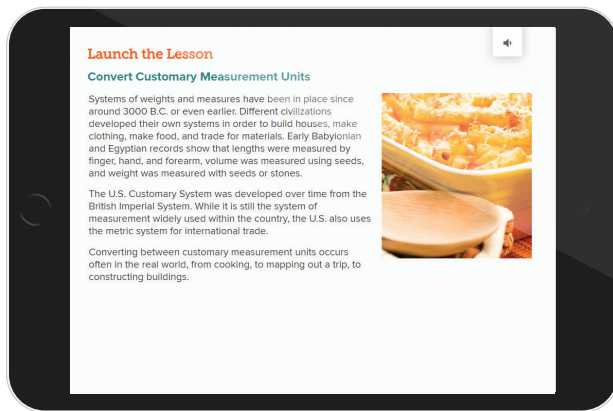
*with *Oklahoma Reveal Math* and *ALEKS* bundle

Real-World Connections

Oklahoma Reveal Math is about students recognizing that math is everywhere in the world around them and that the world offers them an infinite number of problem-solving opportunities.

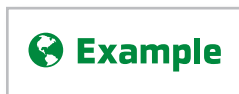
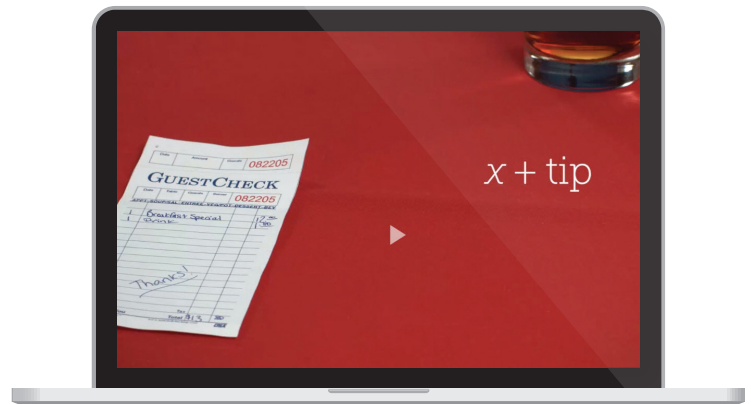
Relatable Scenarios

A **Launch the Module** video highlighting an authentic, recognizable scenario engages students in the upcoming lesson topics.



Relevant Connections

A **Launch the Lesson** real-world situation related to the mathematics in the upcoming lesson helps students make connections.



Lessons also contain real-world **Examples** and **Apply** problems, highlighted with a globe icon, designed to provide relevant contexts in which students can see themselves.

Check

The table shows a bakery's sales of sugar cookies and chocolate chip cookies sold in h hours.

Cookie Sales		
Flavor	Cost (\$)	Number Sold
Sugar	1.15	$6h - 5$
Chocolate Chip	1.15	$10h + 6$

After 15 hours, how much more did the bakery earn in sales of chocolate chip cookies than in sales of sugar cookies?

Math History Minute

Mathematician and astronomer **Muhammad al-Khwarizmi** (around 780–850) wrote the first known text in elementary algebra. The word *algebra* is derived from the word *al-jabr*, part of the title of this text. It means reunion of broken parts in Arabic. His texts were influential in bringing algebraic knowledge to Europe and were the first Arabic mathematics texts translated into Latin.

Math History Minute

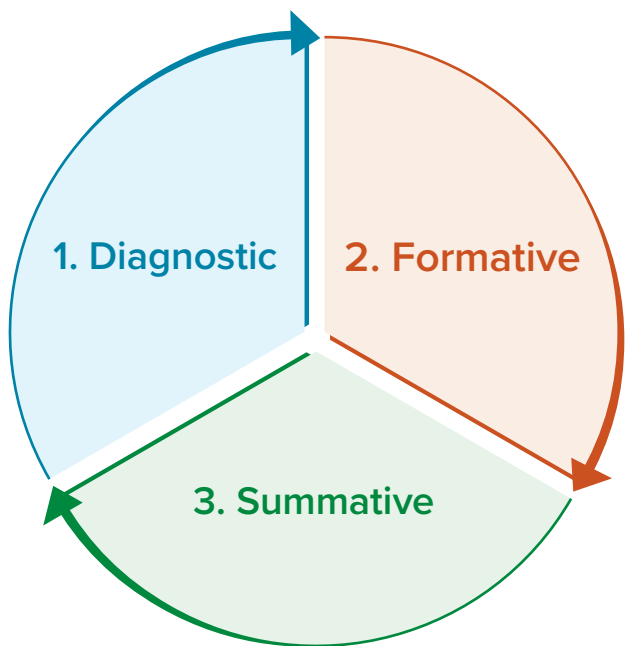
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Multicultural Contributions

To provide students with diverse perspectives, **Math History Minutes** highlight the contributions of leading mathematicians, past and present, from all over the world.

Assessments

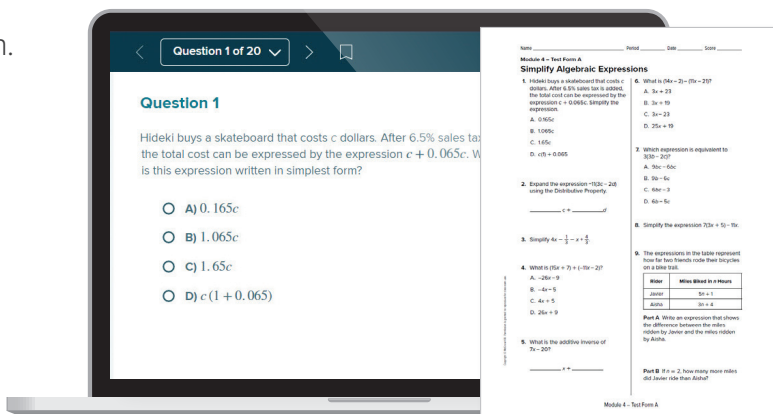
Oklahoma Reveal Math offers a comprehensive set of assessments, including diagnostic, formative, and summative options for teachers to effectively evaluate what students know and where they need support.



Type	Student Edition	Online Resources
Diagnostic	<ul style="list-style-type: none"> • Are You Ready? 	<ul style="list-style-type: none"> • Course Diagnostic • Module Diagnostic • Warm Up
Formative	<ul style="list-style-type: none"> • Examples • Lesson Practice including Skills Application, Higher Order Thinking • Cheryl Tobey Formative Assessment Probe • Checks 	<ul style="list-style-type: none"> • Items from Student Edition • Extra Examples • Extra Practice • Spiral Review • Put it All Together • Exit Ticket • ALEKS*
Summative	<ul style="list-style-type: none"> • Module Review 	<ul style="list-style-type: none"> • Module Tests Forms A, B, and C • Performance Task • Benchmark Assessments • End-of-Course Assessment

Print and Digital Formats

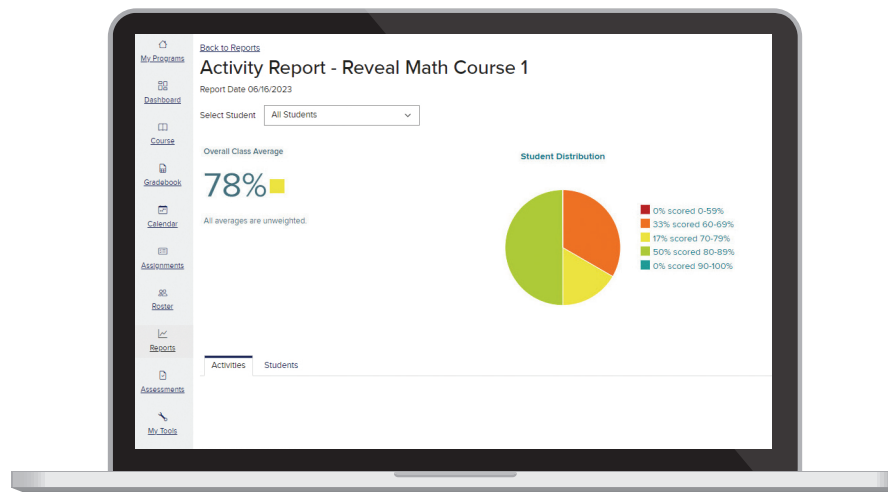
All Oklahoma Reveal Math assessments are available for either print or digital administration. Print assessments can be found in the **Digital Teacher Center** as editable Word documents.



*with Oklahoma Reveal Math and ALEKS bundle

Data to Drive Instructional Insights

Actionable data is a click away in the Digital Teacher Center with the *Oklahoma Reveal Math* Reporting Dashboard.



Activity Performance Report

Teachers can review useful data points for class activities, including item analysis by student and class, as well as overall performance.

Oklahoma Standards Report

Teachers can access information on class performance by Oklahoma Mathematics Standards, including a cumulative score by class and student.

MAP Growth* Report

Teachers can view students' MAP® Growth™ RIT scores and progress throughout the year.

Integrate MAP Growth Data*

MAP Growth, the market's most trusted and accurate interim assessment, integrates its data with *Oklahoma Reveal Math* on the Open Learning Platform.

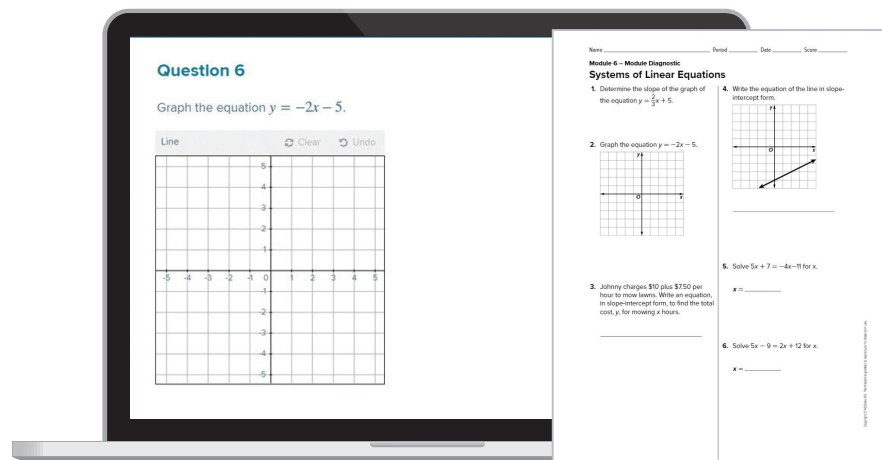
MAP Growth data can save teachers time by identifying students who may need additional support to access grade-level content. **Auto-Grouping** and **Recommended Targeted Skill Paths** provide support and review of critical prerequisite skills.

* For districts that use Map Growth Data

Targeted Remediation and Differentiation

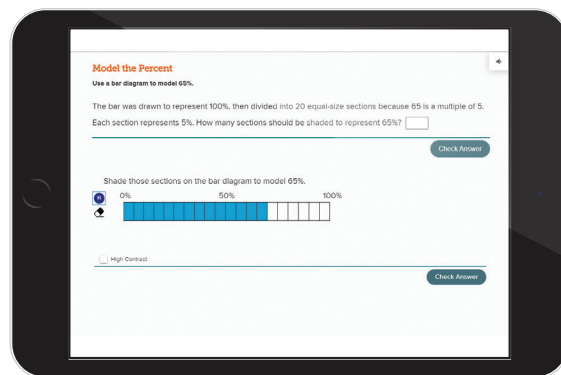
Identify Unfinished Learning

Before beginning the module, assign the **Module Pretest** to evaluate student readiness for the module content.



Targeted Remediation

Review student scores to evaluate and determine the appropriate resources to assign.



ALEKS®

Using adaptive questioning, *ALEKS** quickly and accurately determines what topics a student knows and is ready to learn next.

Review Activities

Each **Review Learn** and **Review Example** provides students with a key concept overview and several examples to meet their prerequisite skill needs.

*with Oklahoma Reveal Math and ALEKS bundle

Enrich Learning with Differentiated Resources

During instruction, after reviewing formative assessment sources and data, choose from a variety of differentiation options to meet the needs of your students.

Take Another Look Mini-Lessons

Supplement core instruction with built-in reteach support, including **Model**, **Interactive Practice**, and **Data Check** resources.

Learn
Watch and follow along with the steps.

In this lesson you will be solving multi-step equations that include using the **Distributive Property**. You will use this property to remove parentheses from the equation. Then you will use inverse operations to isolate the variable term and finally to isolate the variable itself.

Collaboration Strategies

Students reinforce and practice the lesson concept in collaborative groups.

Rally Coach
Solve Systems of Equations by Graphing

How to Complete this Activity

Graph the following system of equations:

$$\begin{cases} y = -2x + 1 \\ y = \frac{3}{2}x - 1 \end{cases}$$

The solution is (,)

Extension Activities

Digitally assign to students who are ready for a challenge.

Solve Literal Equations

Learn

A **literal equation** is an equation in which the variables may represent known values. Formulas are examples of literal equations. Sometimes, it is helpful to rewrite a formula in terms of one of the other variables provided in the formula. This process is known as solving a literal equation.

Consider the formula for the area of a triangle, $A = \frac{1}{2}bh$, where A represents the area of the triangle, b represents the length of the base, and h represents the height of the triangle. If you are given the values b and h , you can use the formula to find A .

Think About It!

Consider the formula $A = \frac{1}{2}bh$. Suppose you were given the values for A and b ? How could you rewrite the formula to solve for h ?

Video Library

Students have access to help videos, **Foldables** support videos, and **Personal Tutor** concept videos for reference. Teachers may choose to assign them for additional student support.

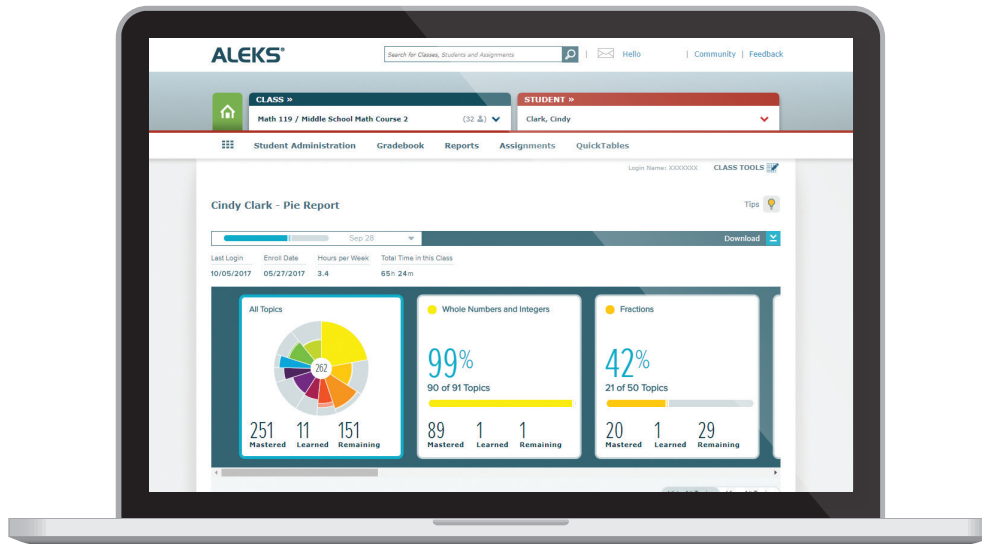
Mrs. Workman

Solve $6(y - 3) = 4(6 + y)$. Check your solution.

$$6(y - 3) = 4(6 + y)$$
$$6y - 18 =$$

Add ALEKS® for Personalized Learning

Oklahoma Reveal Math and ALEKS* provide students the added advantage of a personalized learning pathway continuously adapting to them.



- ALEKS can be used effectively for all students, targeting the exact topics each is most ready to learn. This approach minimizes frustration, accelerates learning momentum, and builds confidence.
- Teachers can create ALEKS assignments directly connected to Oklahoma Reveal Math, so students work on lesson-level content with prerequisite topic support.
- For students who need more challenge, ALEKS provides additional extension opportunities and allows students to progress at their own pace.
- ALEKS course content spans from Grade 3 to Precalculus for infinite options for course content support.
- An automatic cycle of assessment in ALEKS ensures each student's learning pathway is continually refreshed.
- ALEKS reports provide visibility at a granular level to measure progress by student, topic, or Oklahoma Mathematics Standards.

*with Oklahoma Reveal Math and ALEKS bundle

Target Common Misconceptions

Math Probes, written by Cheryl Tobey, are designed to uncover students' misconceptions within every module. These probes, placed at the point of use, allow teachers to make sound instructional choices targeting specific mathematics concepts.

NAME _____ DATE _____ PERIOD _____
Cheryl Tobey Math Probe

Equivalent Expressions
Decide if the expressions are equivalent.

Circle your choice:	Explain your choice:
1. a. $3m + 4 + 5m$ b. $12m$ Equivalent? YES NO	
2. a. $3x + 5 + 7x$ b. $10x + 5$ Equivalent? YES NO	
3. a. $4(x - 8)$ b. $4x - 8$ Equivalent? YES NO	
4. a. $-5(x - 8) + 2$ b. $-5x - 38$ Equivalent? YES NO	
5. a. $(-2 + x) - (3x - 8)$ b. $-2x + 4$ Equivalent? YES NO	
6. a. $(n - 8) + (n - 8)$ b. $2(n - 8)$ Equivalent? YES NO	

Cheryl Tobey Math Probe • Equivalent Expressions McGraw-Hill Education

Each Math Probe features three to four items that are split into two parts:

- Part One** assesses students' understanding of concepts.
- Part Two** asks students to share their thinking about the concepts.



Written by Cheryl Tobey,
Contributing Author

Take Action

The teacher support materials that accompany the Math Probes are designed around a three-part ACT cycle:

- Analyze** the Probe.
- Collect** and Assess Student Work.
- Take Action.** Provided remedies help teachers correct misconceptions quickly and efficiently.

A Analyze the Probe
Review the probe prior to assigning it to your students. In this probe, students will determine if each pair of expressions is equivalent.
Targeted Concept Expressions can look different but still be equivalent. Strategies such as combining like terms, factoring, and distribution can be used to determine whether expressions are equivalent.

C Collect and Assess Student Work
Assign the probe after Lesson 5. 3. No 4. No 5. No 6. Yes

If the student selects...	Then the student likely...
1. Yes with various other No selections	incorrectly combined unlike terms.
3. Yes, 4. Yes, 5. Yes, 6. No	did not distribute to each term or factored only part of the expression.

T Take Action
After the Probe Design a plan to address any possible misconceptions. You may wish to assign the following resources.

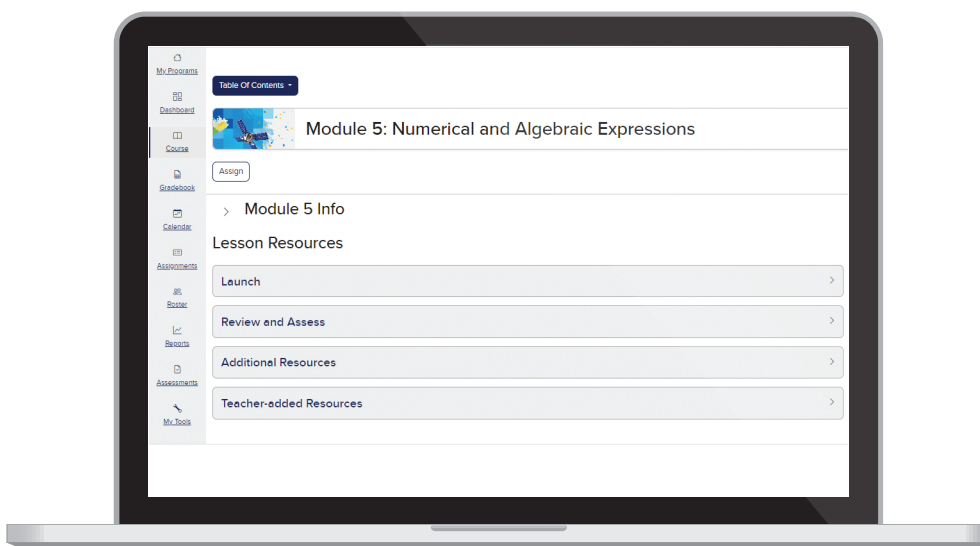
- ALEKS® Whole Numbers and Integers, Fractions, Decimals
- Lesson 1, Examples 1–6
- Lesson 2, Examples 1–2
- Lesson 3, Examples 1–3
- Lesson 4, Examples 1–5
- Lesson 5, Examples 1–3

Revisit the probe at the end of the module to be sure your students no longer carry these misconceptions.

Efficiently Plan for Instruction

See All Lesson Resources at Once

Teachers can view all the lesson resources and plan from organized lesson landing pages within the **Digital Teacher Center** that align to their print Teacher Edition layout. Lessons can be added to the calendar and easily accessed from the **Teacher Dashboard** on the day of learning.



Plan to Facilitate Productive Learning

Each research-based routine of NCTM's Effective Teaching Practices can be found in the structure of the *Oklahoma Reveal Math* Teacher Edition and Digital Teacher Center.

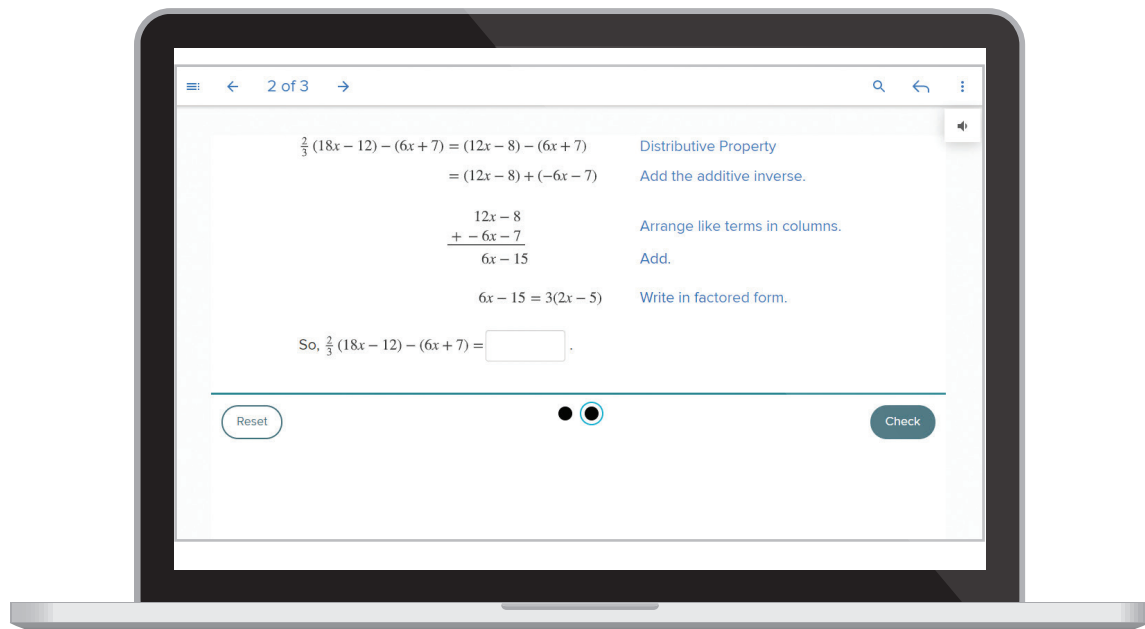
These eight practices include:

- **ESTABLISH** mathematical goals to focus learning.
- **IMPLEMENT** tasks that promote reasoning and problem-solving.
- **USE AND CONNECT** mathematical representations.
- **FACILITATE** meaningful mathematical discourse.
- **POSE** purposeful questions.
- **BUILD** procedural fluency from conceptual understanding.
- **SUPPORT** productive struggle in learning mathematics.
- **ELICIT AND USE** evidence of student thinking.

Access and Customize Lesson Presentations

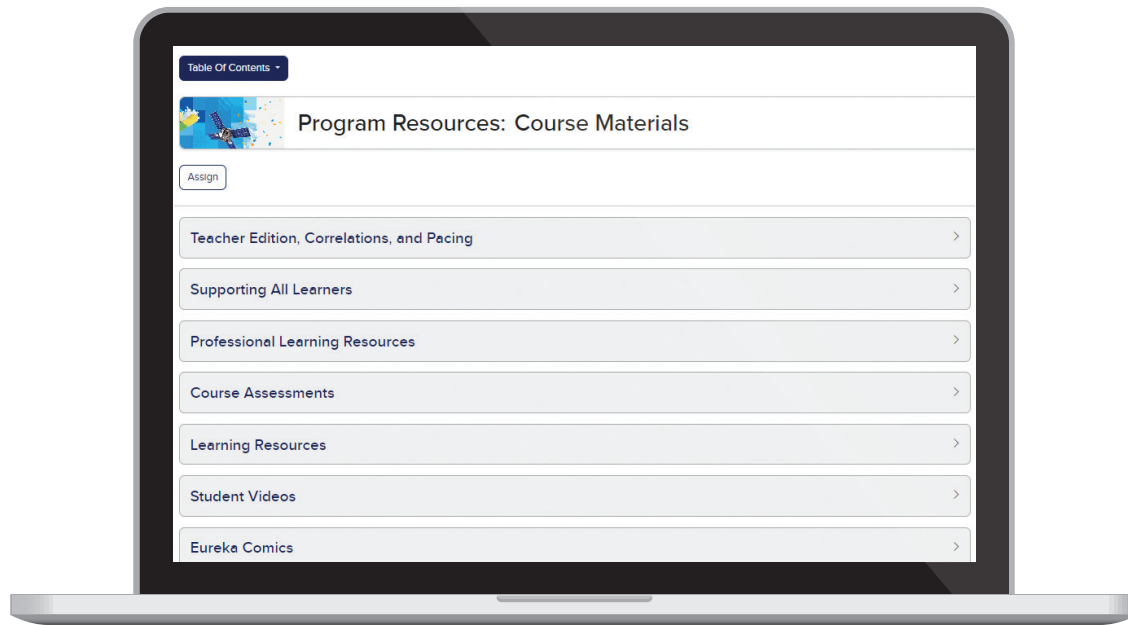
Interactive Lesson Presentation

Teachers have a ready-made Interactive Lesson Presentation with embedded eTools, videos, and animations. This presentation is easily customizable: hide resources or upload teacher files, links, or slides.



Expert-Led Professional Development

Teachers and administrators have access to a comprehensive set of self-paced digital resources available within the Digital Teacher Center for each grade.



Quick Start

Teachers can get up to speed quickly with the *Oklahoma Reveal Math* resources and curriculum overview.

Digital Walkthrough

Digital platform guidance from a teacher view and a student view.

Instructional Videos

Oklahoma Reveal Math authors and experts present guidance and tips on the program.

Cathy Seeley:

- Productive Struggle and Discourse
- Fostering a Positive Math Mindset

Dr. Raj Shah:

- Ignite! Activities

Cheryl Tobey:

- Math Probes



Oklahoma Reveal
MATH[®]

Reveal the Full Potential in Every Student
Learn more at mheonline.com/oklahoma

